# DRUG INTERACTION ANALYSIS IN HOSPITALIZED AND OUTPATIENT CARE OF ASTHMA PATIENT IN ADI HUSADA UNDAAN WETAN HOSPITAL, SURABAYA, INDONESIA

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Asthma is a world wide chronic disease with an estimated 300 million affected individual. The medications for asthma therapy consist of several drugs, causing asthma patients susceptible to polypharmacy as a result of frequent use of multiple drugs simultaneously. This occur to appear a great concern of drug interactions as known to be related to adverse drug reactions and hospitalization, therefore a study to analyze the possibility of drug interactions in asthma patients is needed. This study consisted of two designs. There were retrospective design for hospitalized patient data for 2 years which all population were taken as a sample; and cross-sectional design for outpatient care data using purposive sampling methods to collect the sample for 3 months. Drug interactions were recorded and evaluated using DIPS (Drug Interaction Probability Scale) to determine the causation of interaction. Patients involved in this study were 60 hospitalized patients and 22 outpatients. The total numbers of drug interactions occured in this study were 6 actual cases and 39 potential cases. Those include 60% in hospitalized patients and 13.6% in outpatient. The outcomes from this observation showed that the interaction occurred mostly caused by asthma medication although it's not harmful. Pharmacist's role is needed in monitoring the medication to minimize and prevent adverse drug interactions. Polypharmacy and drug interaction represent potential health hazards for the patient.

**Key words**: drug interaction, asthma, hospitalized patient, outpatient, DIPS

## Introduction

The National Asthma Education and Prevention Program (NAEPP) defines asthma as a chronic inflammatory disorder of the airways in which many cells and cellular elements play a role. In individuals with asthma, inflammation causes recurrent episodes of wheezing, shortness, chest thightness, and cough.[1] Actual asthma symptoms can be treated and controlled, so that most patients can prevent the onset of symptoms throughout the day, to prevent a serious attack.[2] It's currently estimate that there are moret than 200 drugs known to affect the lungs adversely.[3] It's genereally acknowledges that patients with known asthma or chronic obstructive pulmonary disease are at the most significant risk tor drug-induced bronchospasm.[4] Each patient should be assessed to find the right treatment regimen, adherence to treatment, and the